No. 885,669. PATENTED APR. 21, 1908.

H. L. DELLOYE & A. E. HÉNARD.

MEANS FOR OBTAINING ILLUSIONARY DECORATIVE EFFECTS IN ROOMS AND THE LIKE.

APPLICATION FILED AUG. 1, 1907.

3 SHEETS—SHEET 1.

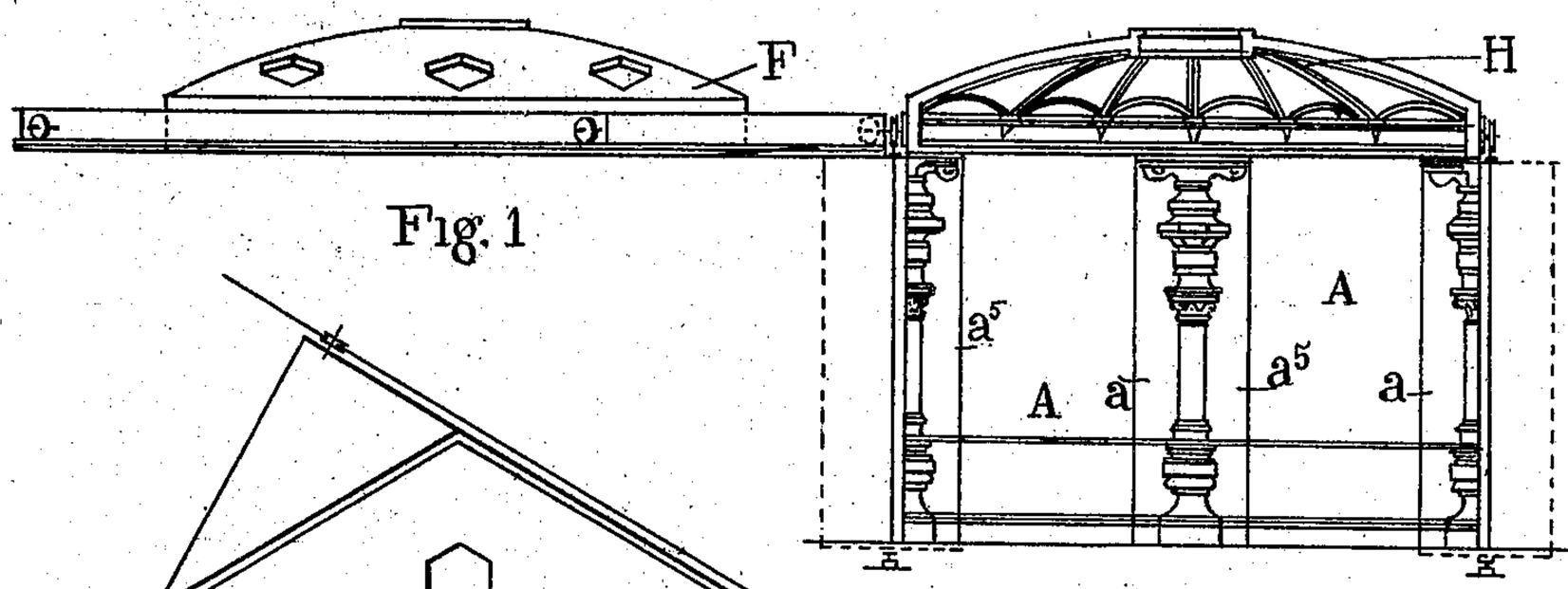

Fig. 1

Fig. 2

Fig. 11

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Fig. 3

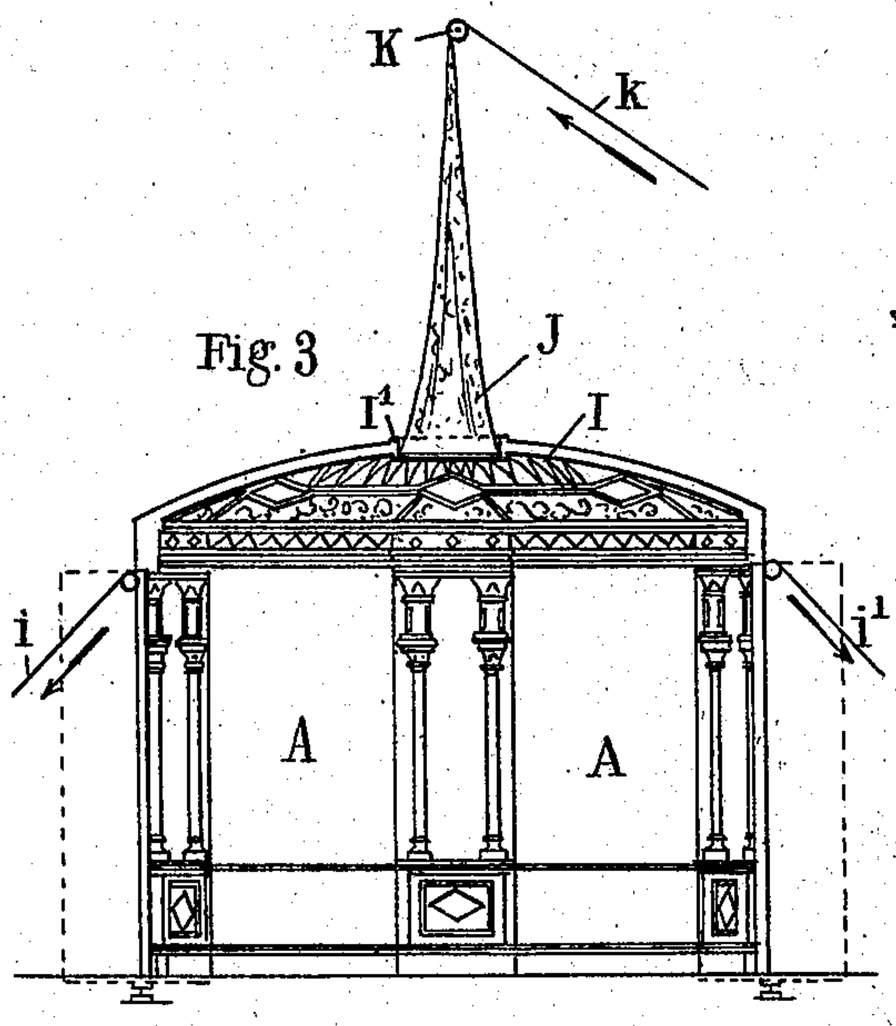


Fig. 5

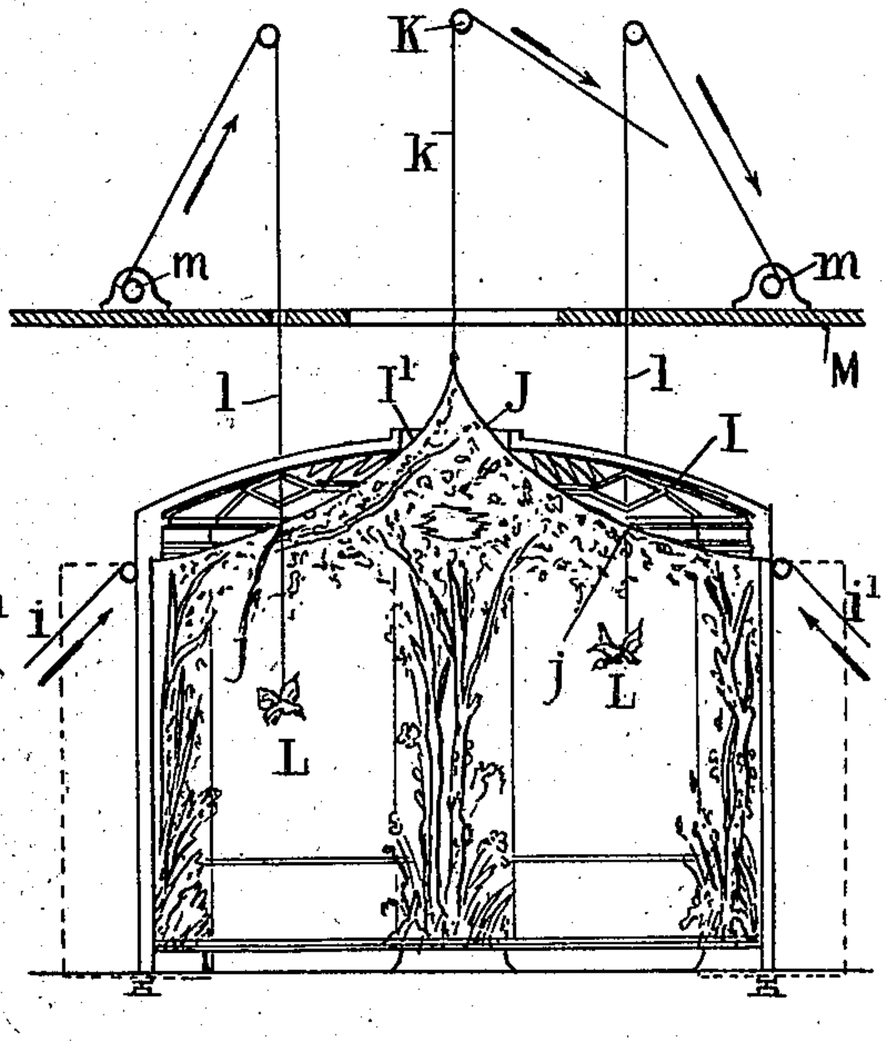


Fig. 4

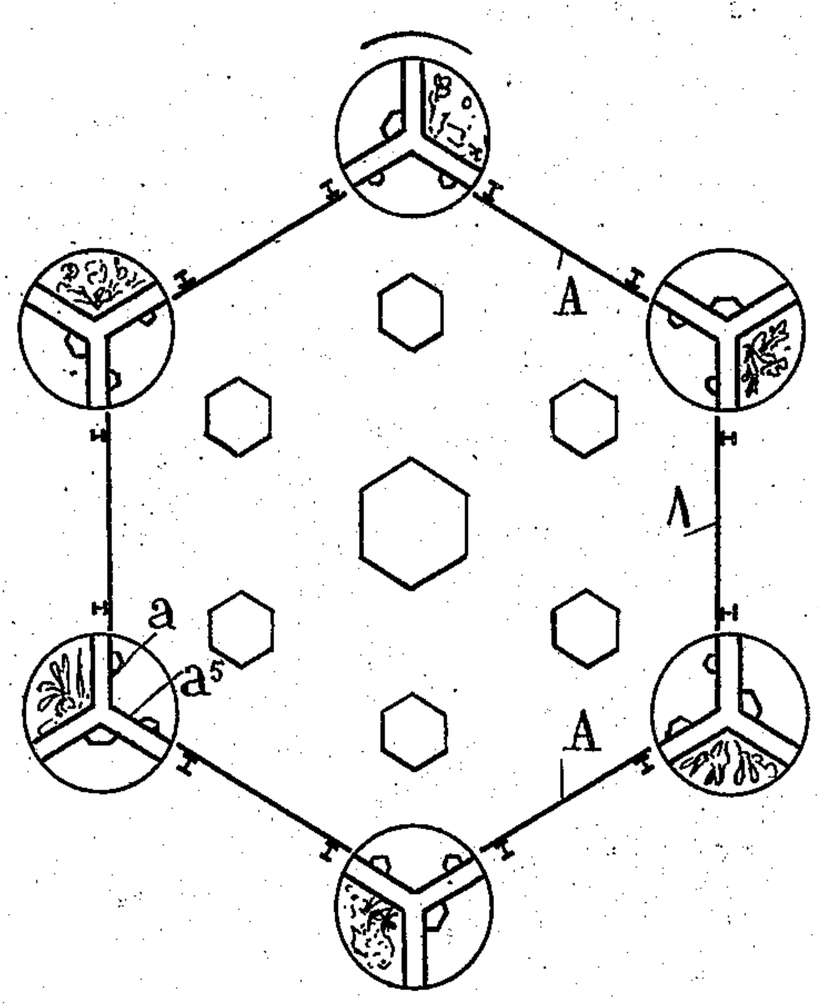
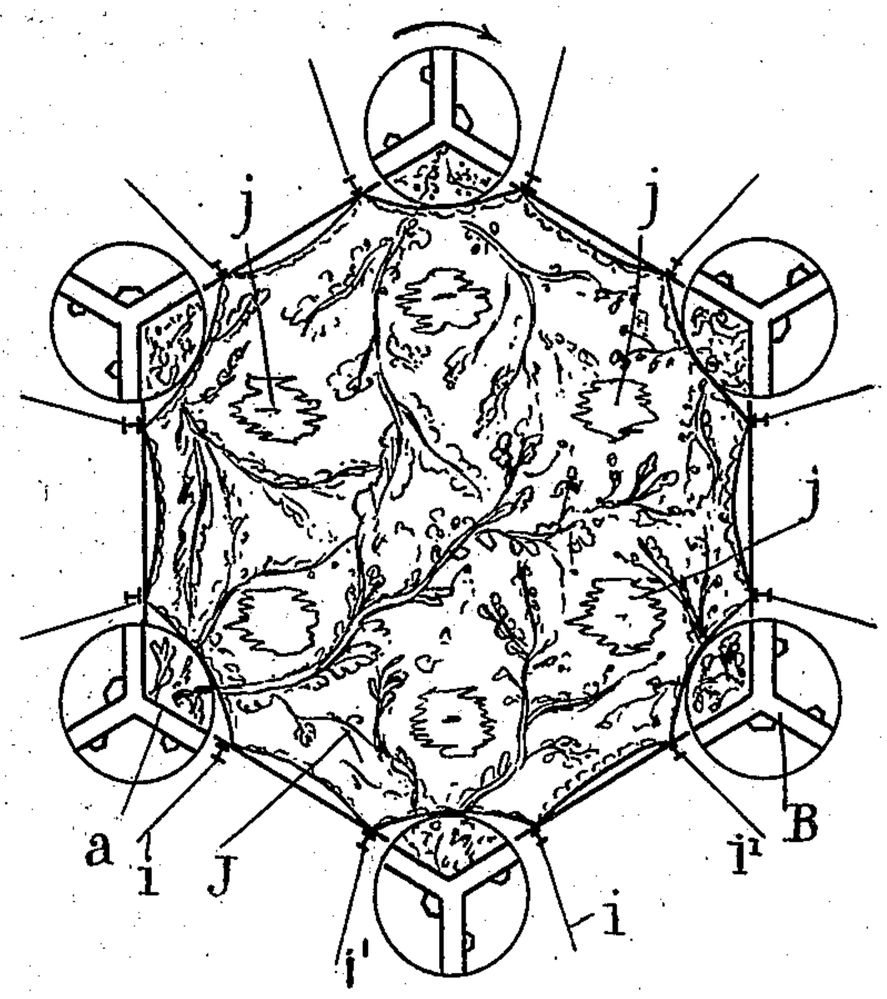


Fig. 6



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3 SHEETS—SHEET 3.

Fig. 7

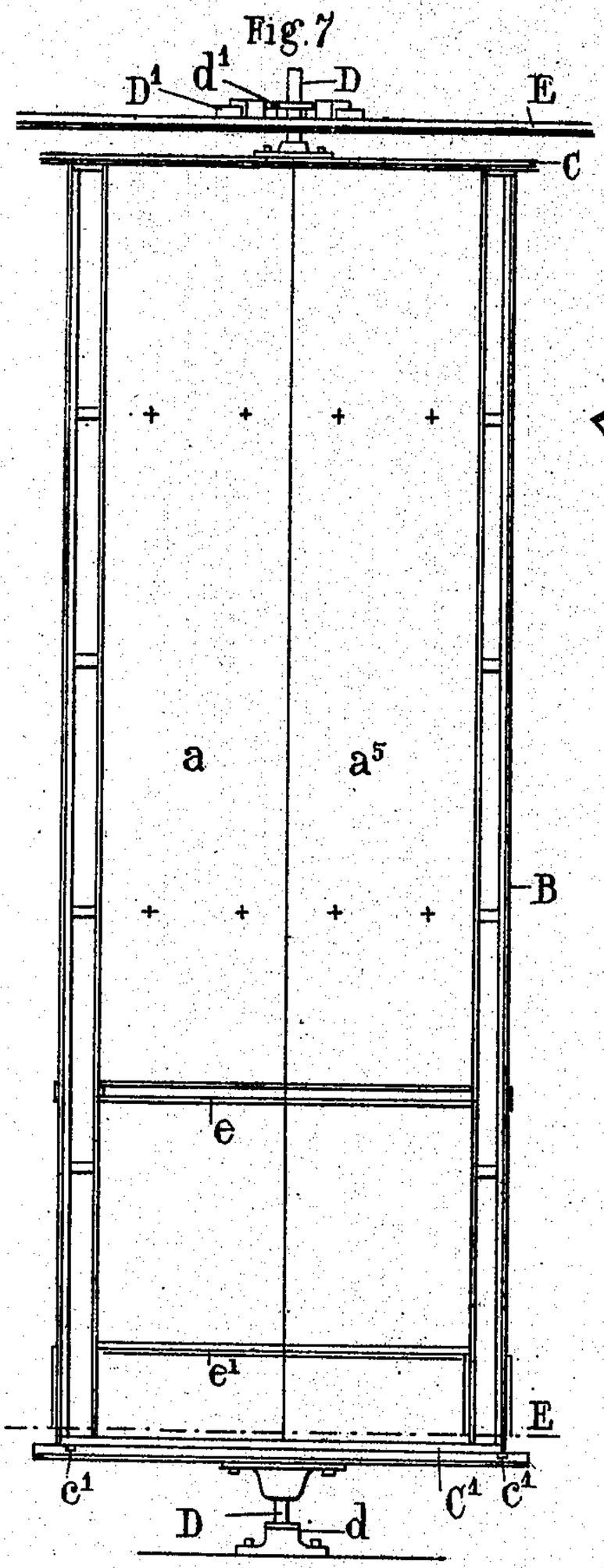


Fig. 8

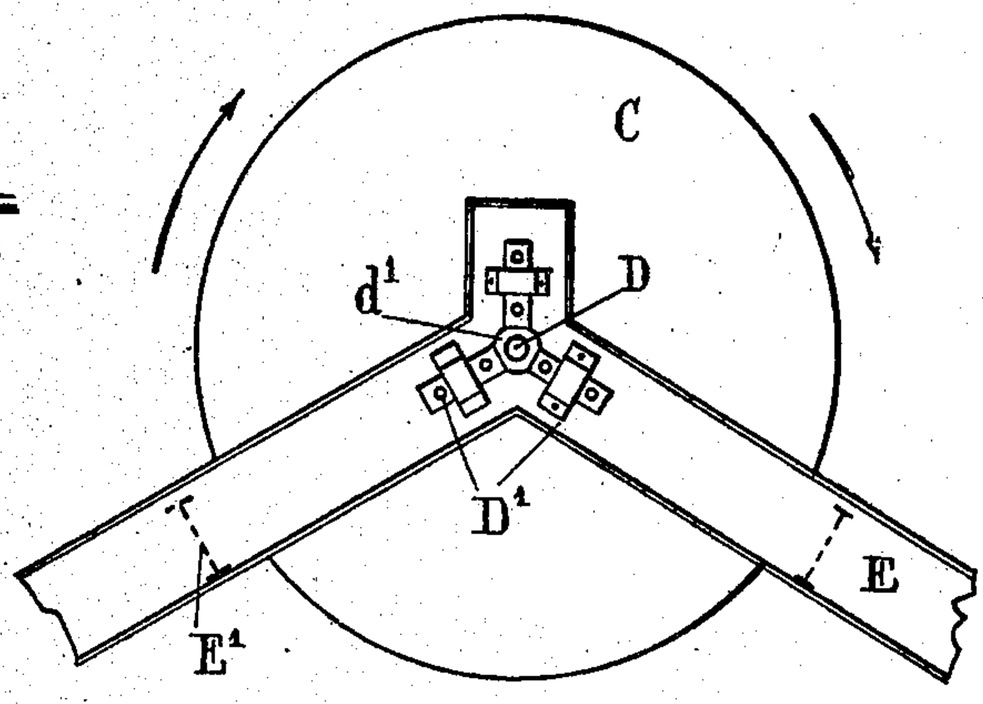


Fig. 9

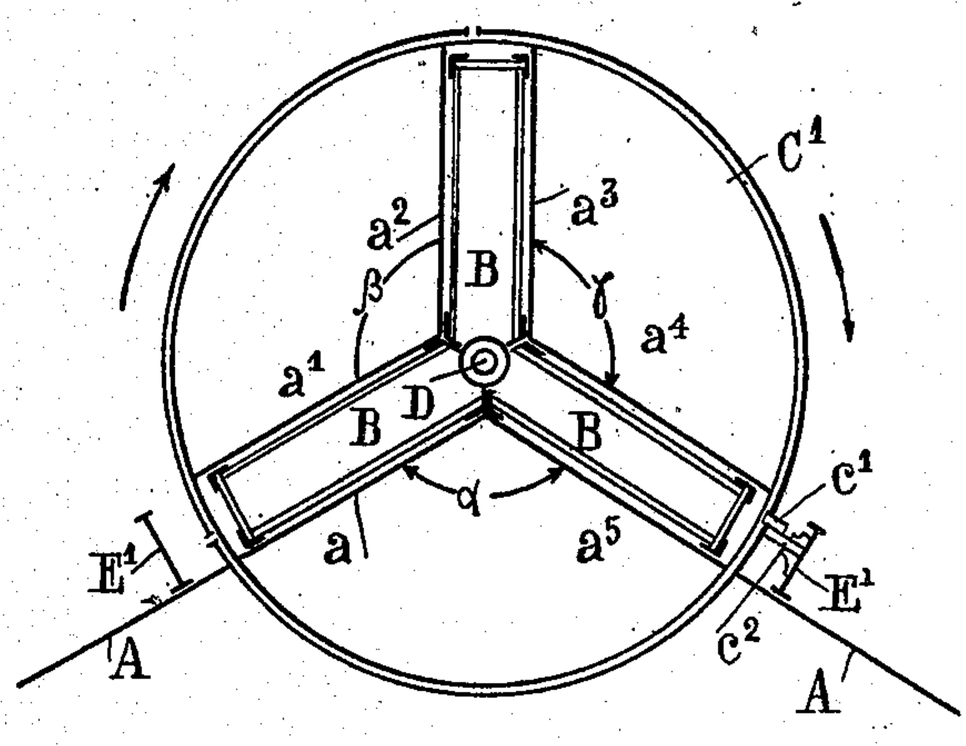
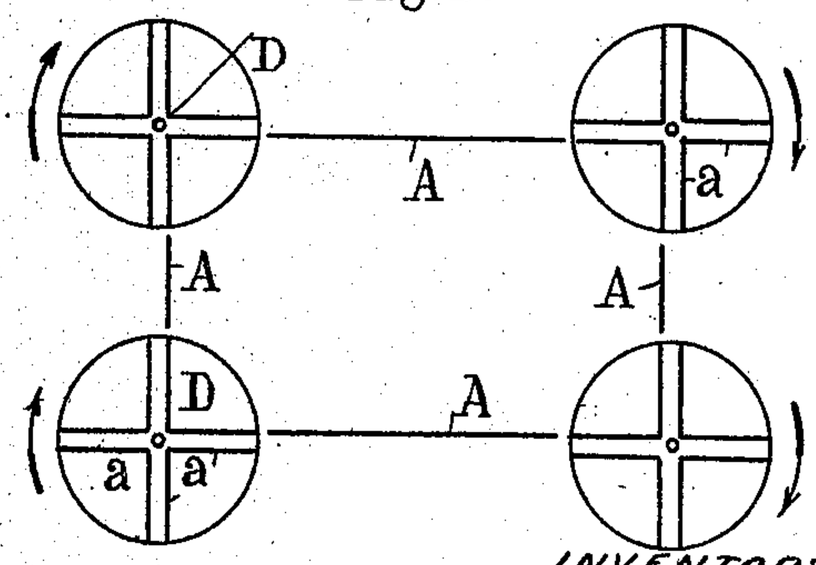


Fig. 10



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UNITED STATES PATENT OFFICE.

HENRI LUCIEN DELLOYE AND ALFRED EUGÈNE HÉNARD, OF PARIS, FRANCE.

MEANS FOR OBTAINING ILLUSIONARY DECORATIVE EFFECTS IN ROOMS AND THE LIKE.

No. 885,669. Specification of Letters Patent. Patented April 21, 1908.

Application filed August 1, 1907. Serial No. 386,645.

To all whom it may concern:

Be it known that we, HENRI LUCIEN DELLOYE, a citizen of the Republic of France, residing in Paris, France, engineer, and ALFRED EUGÈNE HÉNARD, also a citizen of the Republic of France, residing in Paris, Seine, France, architect, have invented certain new and useful Improvements in and Relating to Means for Obtaining Illusionary Decorative Effects in Rooms and the Like, of which invention the following is a full, clear, and exact description.

This invention has for its object various improvements in rooms with reflecting walls, and comprises more particularly a special arrangement of the interior concave dihedral angles of polygonal rooms, enabling these dihedral angles to be caused to pivot. With this object these angles formed by two panels of mirror glass arranged in line with the fixed mirror glass walls, are mounted upon a pivoting device which in turning enables the two original panels to be replaced by two or more other panels occupying the same space. It will be understood that if decorations of different kinds, such as columns, arcades, plants, flowers or the like be provided in the rotary dihedral angles, the entire aspect of the room itself may be changed instantly.

In order to make the ceiling harmonize with the variable decorative effects of the angles, the invention likewise relates to arrangements rendering it possible to modify the appearance of the ceiling or of the upper cupola in a corresponding manner.

Finally the invention also comprises certain arrangements intended to give in the room illusions of objects in movement, which again assist in preserving the general harmony of the room in such a manner as to complete the illusion produced by the decorative effects.

In order that the invention may be readily and clearly understood it is represented by way of example in the accompanying drawings, in which:—

Figure 1 is a diagrammatic elevation, and Fig. 2 a corresponding plan view of a hexagonal room showing the pivoting angles and one of the means for causing the appearance of the ceiling to vary. Figs. 3 and 4 are similar views, illustrating a second means for modifying the appearance of the cupola by means of a screen or awning. Figs. 5 and 6 are similar views showing on the one hand the screen or awning unfolded or developed and on the other hand a device intended to give an illusion of objects in movement. Figs. 7, 8 and 9 represent in detail a pivoting angle or corner in elevation, top view and bottom view respectively. Figs. 10 and 11 are diagrammatic plan views of a rectangular room and of a triangular room respectively.

As shown in the drawings, the walls of the room are composed in the ordinary manner of fixed mirrors A and also of small panels of movable mirror glass a, a^5. These angle panels are inclined one to the other in pairs at an angle of 120° (Figs. 2, 4, 6, 8 and 9). The two panels a, a^5 (see Figs. 7, 8 and 9) are mounted on a metal frame forming a triple box B which is fixed at its lower and upper parts to two turning plates C, C^1, through which the pivoting shaft D passes. This shaft rests in a stop bearing d (Fig. 7) its upper part passing through a ring d^1 (Fig. 8) the position of which may be modified slightly by means of a regulating device D^1 comprising slots for example, in order to insure that this shaft shall be perfectly vertical; this regulating device is attached to the fixed metallic framework E of the room. The said box B presents three concave dihedral angles of 120°; the first angle α is provided with two mirror panels a, a^5, and the other two angles β and γ with identical panels a^1, a^2, and a^3, a^4 respectively (Fig. 9).

Three stop devices c^1 formed on the edge of the lower circular plate C^1 permit of determining and fixing by means of a bolt c^2 the position of the apparatus after a third of a revolution, at each third of a revolution the panels a^1, a^2 and a^3, a^4, replace in succession the panels a, a^5.

In Figs. 7, 8 and 9, E^1 designates a pillar and E^2 the floor of the room; e is the ogee and e^1 the stylobate.

If in each of the six rotating corners of the room, which corners are constructed in a similar manner, the panels similar to a, a^5 are given a decoration representing say a single column, and the decoration of the panels a^3, a^4 plants or flowers, the hexagonal room with reflecting walls multiplies these three series of decorations in all directions so that three different aspects are obtained. The room (Figs. 1 and 2) represents a quincunx of single columns, the room (Fig. 3 and

4) a quincunx of multiple columns and the room (Figs. 5 and 6) a flower garden. As it is the angles and their successive reflections which give rise to repetitions which are theoretically infinite it is the modifications of these angles which alter the oppearance of the room to the greatest extent.

In order to cause the ceiling to harmonize with the decorative effects of the angles, one or other of the following arrangements may be adopted, for example:—In case the space available is sufficient, traveling frames carrying cupolas F, G, H, of different aspect, each corresponding to the decorations of the angles, are arranged on one or more series of parallel rails *f*, *g*, *h*, at the upper part of the room; these cupolas are able to occupy the upper part of the said room in succession. In cases in which the available space does not admit of arranging the installation in this manner, a fixed cupola I corresponding to the decorations of one of the sets of angles is provided, one or several screens of painted canvas J being mounted therein, suspended from tackle K by cables *k* (Fig. 5). By allowing a screen to descend through the central orifice I^1 of the fixed cupola and by stretching it by means of cords *i*, i^1 the cupola I may be completely masked, and replaced by a foliage device with a certain number of wreaths in relief for the purpose of concealing the lines of junction with the preceding decoration. As an accessory arrangement, the screen J may be provided with large holes *j* corresponding to orifices formed in the fixed cupola I, these holes and orifices being utilized for raising or lowering alternately luminous representations of butterflies, birds, insects, stars, wax dolls, figurantes L, etc., suspended from wires *l*. These objects are displaced by means of electric winches *m*, arranged on an operating floor M and given variable speeds, in such a manner as to furnish in the room an illusion of the flight of insects, aerial dances, falling stars, etc., or any other mobile effects. The room is entered either by means of staircases formed in the ground or through lateral doors opening in the panel of fixed mirrors.

Without departing from the principle of this invention any modifications may be introduced into it which do not affect its spirit. Thus the principle of the turning angles may be applied to rooms of any polygonal shape, rectangular rooms with mirror glass walls (Fig. 10), triangular rooms (Fig. 11) etc.; for triangular rooms (Fig. 11) the dihedral angles being 60 degrees, six different decorations may be obtained, and in the case of rectangular rooms with angles of 90° the different decorations are four in number. For other rooms the number of different decorations varies with the width of the angle of the turning corner.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. The combination with the polygonal room having reflecting walls, and openings at the corners extending the full height of the room, of interchangeable panels for closing the openings, said panels being angular in form to correspond with the angle of the room corner and provided with decorations, said panels being arranged in series, the number of panels in a series corresponding to the number of corners in a room, the decoration of the panels being the same in each series and different from the panels of the other series.

2. The combination with the polygonal room having reflecting walls, and openings at the corners extending the full height of the room, of interchangeable panels for closing the openings, said panels being angular in form to correspond with the angle of the room corner and provided with decorations, said panels being arranged in series, the number of panels in a series corresponding to the number of corners in the room, and the decoration of the panels being the same in each series and different from the panels of the other series, and a plurality of interchangeable ceilings corresponding in number to the number of series and each provided with decorations corresponding to the decoration of the respective series.

3. The combination with the polygonal room having reflecting walls, and openings at the corners extending the full height of the room, of interchangeable panels for closing the openings, said panels being angular in form to correspond with the angle of the room corner and provided with decorations, said panels being arranged in series, the number of panels in a series corresponding to the number of corners in a room, the decoration of the panels being the same in each series and different from the panels of the other series, and a plurality of sets of representations of butterflies, birds, stars and other luminous objects and means for lowering said objects into the room.

4. The combination with the polygonal room having reflecting walls, and openings at the corners extending the full height of the room, of interchangeable panels for closing the openings, said panels being angular in form to correspond with the angle of the room corner and provided with decorations, said panels being arranged in series, the number of panels in a series corresponding to the number of corners in the room, and the decoration of the panels being the same in each series and different from the panels of the other series, a plurality of interchangeable ceilings corresponding in number to the number of series and each provided with decorations corresponding to the decoration

of the respective series, and a plurality of representations of butterflies, birds, stars, and other luminous objects, and means for lowering said objects into the room.

5. The combination with the polygonal room having reflecting walls and openings at the corners, extending the full height of the room, of interchangeable panels for closing the openings, said panels being angular in form to correspond with the angle of the room corner and pivotally mounted whereby they may swing into and out of the openings to close the same.

6. The combination with the polygonal room having reflecting walls and openings at the corners, extending the full height of the room, of interchangeable panels for closing the openings, said panels being angular in form to correspond with the angle of the room corner.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses.

HENRI LUCIEN DELLOYE.
ALFRED EUGÈNE HÉNARD.

Witnesses:
BENJAMIN BLOCHE,
H. C. COXE.